

S E R V I C E N O T E

SUPERSEDES: None

37714A PDH/SDH/ATM Test Set

Serial Numbers: See Duplicate Service Notes

Handling Lightwave Connectors**Duplicate Service Notes**

37714A-11 Serials: 3339U00100 / 3339U09999

37717A-14 Serials: 3345U00100 / 3345U09999

37717B-17 Serials: 3509U00100 / GB00009999

37717C-10 Serials: GB00000100 / GB00009999

To be Performed by: Qualified Service Personnel**Parts Required**

Item	Part No.	Connector Option
Laser shutter cap	08145-64521	All options
FC/PC dust cap	08154-44102	opt 012
Biconic dust cap	08154-44105	opt 015
DIN dust cap	5040-9364	opt 013
HMS10/dust cap	5040-9361	opt 011
ST dust cap	5040-9366	opt 014

Continued

DATE: March 1998

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

INFORMATION ONLY

AUTHOR:

DBG

ENTITY:

E610

ADDITIONAL INFORMATION:

Situation

The warranty fail rate of optical modules has risen dramatically. Some modules have been returned for failure analysis, and it has been found that the fault has been due to dirty optical connections rather than a genuine fault.

Action

Proper cleaning and handling of lightwave connectors is imperative for achieving accurate and repeatable measurements with your Agilent lightwave equipment. Lightwave interfaces should be cleaned before each measurement using the techniques described in service note 37714A-09. Information on protecting and storing your connectors/cables and tips on how to properly mate connectors are included in this service note.

Handling

Always handle lightwave connectors and cable ends with great care. Fiber ends should never be allowed to touch anything except other mating surfaces or cleaning solutions and tools.

CAUTION

Agilent strongly recommends that index matching compounds NOT be applied to their instruments and accessories. Some compounds, such as gels, may be difficult to remove and can contain damaging particulates. If you think the use of such compounds is necessary, refer to the compound manufacturer for information on application and cleaning procedures.

Storage

All of Agilent's lightwave instruments are shipped with either laser shutter caps or dust caps on the lightwave adapters that come with the instrument. Also, all of the cables that are shipped have covers to protect the cable ends from damage or contamination. These dust caps and protective covers should be kept on the equipment at all times except when in use.

The adapters that were shipped on your instrument can be removed from the connectors on the instrument. If you remove these adapters you should keep the exposed connector of your instrument covered until the next use. Protective covers for these exposed connectors are not provided with the instruments, so it is best to keep the adapters on the instrument with the dust covers on.

Making Connections

When you insert the ferrule into a connector or adapter, make sure that the fiber end does not touch the outside of the mating connector or adapter. In this way, you will not rub the fiber end against any undesirable surface. Many connectors have a keyed slot provided for optimum measurement repeatability that also helps to align and seat the two connectors. After the ferrule is properly seated inside the other connector, use one hand to keep it straight, rotate it to align the key, and tighten it with the other hand.

Most connectors using springs to push fiber ends together exert one to two pounds of force. Over-tightening or under-tightening these connectors can result in misalignment and non-repeatable measurements. Always finger tighten the connector in a consistent manner. Refer to the manufacturer's data sheet for any torque recommendations.

Summary

When making measurements with lightwave instruments or accessories, the following precautions will help to insure good, reliable, repeatable measurements:

- Use extreme care in handling all lightwave cables and connectors.
- Be sure the connector interfaces are clean before making any connections.
- Use the cleaning methods described in the service note 37714A-09.
- Keep connectors and cable ends covered when not in use.